

THE SPECTROSCOPE.

From the Atlantic Monthly, for 1870. An several wonderful discoveries have lately been made in astronomy by means of the spectroscopic...

Since an early period in the history of chemistry, it has been known that the different alkalies and earths can be distinguished by the different colors which they give to the flame of alcohol...

Accordingly, this instrument never attracted much attention until 1860, when the researches of Kirchhoff and Bunsen were published. From this time may also be dated a new era in chemistry and astronomy...

But what drew the most particular attention to these researches was the discovery by Bunsen, by means of the spectroscopic...

The optician Fraunhofer, in 1814, upon observing the spectrum of the sun with a carefully constructed spectroscopic...

In order to obtain the yellow part of the light emitted from the spectra of the heavier metals, they were made the electrodes of a Ruhmkorff coil...

exaggerated scale. The sun-spots increase in number for five and a half years, and then diminish for five and a half years. We are still far from being able to explain the solar spots...

The nebulae also have been subjected to spectroscopic examination, and have been found to be of two distinct kinds. The shapeless ones, the "rays," round nebulosities about stars...

The spectrum of the aurora borealis has often been examined. It is not always the same, but it usually shows a greenish-yellow bright line. In addition to this, six other lines or bands have been seen in this spectrum...

Since the introduction of chemistry and physics, the flame they made use of was that of the Bunsen gas-burner, which is much better suited to spectroscopic work than that of alcohol...

But what drew the most particular attention to these researches was the discovery by Bunsen, by means of the spectroscopic...

The optician Fraunhofer, in 1814, upon observing the spectrum of the sun with a carefully constructed spectroscopic...

In order to obtain the yellow part of the light emitted from the spectra of the heavier metals, they were made the electrodes of a Ruhmkorff coil...

But what drew the most particular attention to these researches was the discovery by Bunsen, by means of the spectroscopic...

RAILROAD LINES. READING RAILROAD—GREAT TRUNK LINE. From Philadelphia to the interior of Pennsylvania...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

RAILROAD LINES. PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—TIME TABLE. Train will leave Depot corner Broad street and Washington...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...

AUCTION SALES. M. THOMAS & SONS, NOS. 130 AND 141 N. 3rd Street. Sale at No. 311 N. Third street, the neat household furniture...